SEQUENCE LISTING

<110> Cashman, Neil
Paramithiotis, Eustache
Slon-Usakiewicz, Jacek
Haghighat, Ashkan
Pinard, Marc
Lawton, Trebor

<120> PRION PROTEIN PEPTIDES AND USES THEREOF

<130> 50111/002002

<140> US 09/602,775
<141> 2000-06-23

<150> 60/140,634
<151> 1999-06-23

<160> 34

<170> FastSEQ for Windows Version 4.0

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<220>
<223> Synthetic peptide

<221> VARIANT
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<223> Xaa = Any Amino Acid

a1

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Xaa Tyr Tyr Xaa
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<400> 2

Xaa Tyr Tyr Xaa Tyr Tyr Xaa
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<400> 3
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10

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<221> VARIANT
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<223> Xaa = Any Amino Acid

a1 Cont.

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1 5 10

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Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15

<210> 6
<211> 19
<212> PRT
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<223> Synthetic peptide

<221> VARIANT
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<223> Xaa = Any Amino Acid

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Tyr Tyr Xaa

<210> 7
<211> 22
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<221> VARIANT
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Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
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Tyr Tyr Xaa Tyr Tyr Xaa
            20

A' Cont.

<210> 8
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 8
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
            20   25

<210> 9
<211> 28
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<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(28)
<223> Xaa = Any Amino Acid

<400> 9
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
            20   25

<210> 10
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<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(31)
<223> Xaa = Any Amino Acid

<400> 10
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
            20   25   30

a' Cont.

<210> 11
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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 11
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr

20 25 30
Tyr Xaa

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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 12
Xaa Tyr Tyr Arg
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Xaa Tyr Tyr Gln
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<220>
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<221> VARIANT
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 1   5   10

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<221> VARIANT
<222> (1)...(16)
<223> Xaa = Any Amino Acid

<400> 16
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 1   5   10   15

a' cont.

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<221> VARIANT
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<223> Xaa = Any Amino Acid

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 1   5   10   15
Tyr Tyr Xaa

<210> 18
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<213> Artificial Sequence

<220>
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<221> VARIANT
<222> (1)...(22)
<223> Xaa = Any Amino Acid

<400> 18
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa
            20

<210> 19
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<212> PRT
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<220>
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<221> VARIANT
<222> (1)...(25)
<223> Xaa = Any Amino Acid

<400> 19
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
            20   25

a' Cont.

<210> 20
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(28)
<223> Xaa = Any Amino Acid

<400> 20
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 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
            20   25

<210> 21
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(31)
<223> Xaa = Any Amino Acid

<400> 21
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 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
            20   25   30

<210> 22
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<223> Synthetic peptide

<221> VARIANT
<222> (1)...(34)
<223> Xaa = Any Amino Acid

<400> 22
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
            20   25   30
Tyr Xaa

a' Cont.

<210> 23
<211> 37
<212> PRT
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<220>
<223> Synthetic peptide

<221> VARIANT
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<400> 23
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
 1   5   10   15

Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
20 25 30
Tyr Xaa Tyr Tyr Xaa
35

<210> 24
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<400> 24
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1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
20 25 30
Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
35 40

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<212> PRT
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<220>
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a' Cont.

<221> VARIANT
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<400> 25
Xaa Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1 5 10

<210> 26
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<212> PRT
<213> Bos taurus

<400> 26
Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
1 5 10 15
Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
20 25 30
Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
35 40 45

```
Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
    50                  55                  60
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
65                  70                  75                  80
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
                85                  90                  95
Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys
            100                 105                 110
Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala
        115                 120                 125
Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met Leu Gly Ser Ala
    130                 135                 140
Met Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr
145                 150                 155                 160
Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro
                165                 170                 175
Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Cys Val Asn
            180                 185                 190
Ile Thr Val Lys Glu His Thr Val Thr Thr Thr Thr Lys Gly Glu Asn
        195                 200                 205
Phe Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met
    210                 215                 220
Cys Ile Thr Gln Tyr Gln Arg Glu Ser Gln Ala Tyr Tyr Gln Arg Gly
225                 230                 235                 240
Ala Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser
                245                 250                 255
Phe Leu Ile Phe Leu Ile Val Gly
            260
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<210> 27
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<212> PRT
<213> Homo sapiens

<400> 27

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Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp
 1               5                  10                  15
Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
            20                  25                  30
Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
        35                  40                  45
Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
    50                  55                  60
Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
65                  70                  75                  80
Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
                85                  90                  95
Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
            100                 105                 110
Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
        115                 120                 125
Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp
    130                 135                 140
Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln
145                 150                 155                 160
Val Tyr Tyr Arg Pro Met Asp Glu Tyr Ser Asn Gln Asn Asn Phe Val
                165                 170                 175
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a' cont.

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His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr
            180                 185                 190
Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg
        195                 200                 205
Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala
    210                 215                 220
Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val
225                 230                 235                 240
Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
                245                 250
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<210> 28
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<212> PRT
<213> Ovis aries

<400> 28

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Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1               5                  10                  15
Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
            20                  25                  30
Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
        35                  40                  45
Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
    50                  55                  60
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
65                  70                  75                  80
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly
                85                  90                  95
Gly Ser His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met
            100                 105                 110
Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu
        115                 120                 125
Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe
    130                 135                 140
Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr
145                 150                 155                 160
Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Arg Tyr Ser Asn Gln Asn
                165                 170                 175
Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
            180                 185                 190
Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile
        195                 200                 205
Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
    210                 215                 220
Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser
225                 230                 235                 240
Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
                245                 250                 255
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a' cont

<210> 29
<211> 254
<212> PRT
<213> Mus musculus

<400> 29

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Met Ala Asn Leu Gly Tyr Trp Leu Leu Ala Leu Phe Val Thr Met Trp
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Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
            20                  25                  30
Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
        35                  40                  45
Tyr Pro Pro Gln Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly Trp
    50                  55                  60
Gly Gln Pro His Gly Gly Ser Trp Gly Gln Pro His Gly Gly Ser Trp
65                  70                  75                  80
Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His Asn
                85                  90                  95
Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Leu Lys His Val Ala
            100                 105                 110
Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met
        115                 120                 125
Leu Gly Ser Ala Met Ser Arg Pro Met Ile His Phe Gly Asn Asp Trp
    130                 135                 140
Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr Pro Asn Gln Val
145                 150                 155                 160
Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His
                165                 170                 175
Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr Thr
            180                 185                 190
Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg Val
        195                 200                 205
Val Glu Gln Met Cys Val Thr Gln Tyr Gln Lys Glu Ser Gln Ala Tyr
    210                 215                 220
Tyr Asp Gly Arg Arg Ser Ser Ser Thr Val Leu Phe Ser Ser Pro Pro
225                 230                 235                 240
Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
                245                 250
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<210> 30
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<212> PRT
<213> Mesocricetus auratus

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Met Ala Asn Leu Ser Tyr Trp Leu Leu Ala Leu Phe Val Ala Met Trp
 1               5                  10                  15
Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
            20                  25                  30
Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
        35                  40                  45
Tyr Pro Pro Gln Gly Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly
    50                  55                  60
Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
65                  70                  75                  80
Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
                85                  90                  95
Asn Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
            100                 105                 110
Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
        115                 120                 125
Met Leu Gly Ser Ala Met Ser Arg Pro Met Met His Phe Gly Asn Asp
    130                 135                 140
```

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Trp Glu Asp Arg Tyr Tyr Arg Glu Asn Met Asn Arg Tyr Pro Asn Gln
145                 150                 155                 160
Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn Asn Phe Val
                165                 170                 175
His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr
            180                 185                 190
Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile Met Glu Arg
        195                 200                 205
Val Val Glu Gln Met Cys Thr Thr Gln Tyr Gln Lys Glu Ser Gln Ala
    210                 215                 220
Tyr Tyr Asp Gly Arg Arg Ser Ser Ala Val Leu Phe Ser Ser Pro Pro
225                 230                 235                 240
Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Met Val Gly
                245                 250
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<210> 31
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 31
Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1   5

<210> 32
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

a'
Cont

<400> 32
Cys Tyr Tyr Arg
1

<210> 33
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 33
Cys Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1   5   10

<210> 34
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 34
Cys Lys Tyr Glu Asp Arg Tyr Tyr Arg Glu
1 5 10